

[0117] Another advantage of the invention is the fact that the gateway software architecture allows rapid deployment according to precise requirements set by the particular environment. The administrator simply prepares a set of XML configuration documents for each desired gateway 1 service and the service framework operates automatically to generate the service, including all internal event handling and service-to-service communication capabilities.

[0118] The invention is not limited to the embodiments described but may be varied in construction and detail. For example the gateway 1 may interface with a communications network other than a mobile network, in which case the network device capabilities are dealt with in the same manner as those of mobile devices. Specific examples of a non-mobile network are a fixed telephony or IP based subscriber network and a digital TV network.

1. An access gateway comprising:

a content server interface,

a mobile network interface, and

a processor for bi-directionally routing content-rich messages between said interfaces.

2. An access gateway as claimed in claim 1, wherein the processor comprises a plurality of services, including an edge service for interfacing with the content server interface and an edge service for interfacing with the mobile network interface.

3. An access gateway as claimed in claim 1, wherein:

the processor comprises a plurality of services, including an edge service for interfacing with the content server interface and an edge service for interfacing with the mobile network interface; and

each service includes a plurality of components, each for operating autonomously within the service in communication with other components within the same service.

4. An access gateway as claimed in claim 1, wherein:

the processor comprises a plurality of services,

including an edge service for interfacing with the content server interface and an edge service for interfacing with the mobile network interface;

each service includes a plurality of components, each for operating autonomously within the service in communication with other components within the same service; and

each service comprises a queuing mechanism and an event dispatcher, and each component places an output message in a queue of the queuing mechanism and the event dispatcher routes events from the queue to next components of the service.

5. An access gateway as claimed in claim 4, wherein each service comprises routing information stored at creation of the service and the event dispatcher routes events according to said routing information.

6. An access gateway as claimed in claim 1, wherein:

the processor comprises a plurality of services, including an edge service for interfacing with the content server interface and an edge service for interfacing with the mobile network interface;

the gateway further comprises a middleware internal communications mechanism and each service comprises a middleware handler for retrieving messages from a channel of the middleware communications mechanism and a handler for placing messages on a channel of the middleware communications mechanism.

7. An access gateway as claimed in claim 6, wherein a single handler of each service both retrieves messages and places messages.

8. An access gateway as claimed in claim 1, wherein:

the processor comprises a plurality of services, including an edge service for interfacing with the content server interface and an edge service for interfacing with the mobile network interface;

each service includes a plurality of components, each for operating autonomously within the service in communication with other components within the same service; and

at least one service comprises a content protocol converter component.

9. An access gateway as claimed in claim 8, wherein said component converts between an external content protocol and a content protocol which is internal to the gateway and is used for processing of content by the gateway between the two interfaces.

10. An access gateway as claimed in claim 1, wherein:

the processor comprises a plurality of services, including an edge service for interfacing with the content server interface and an edge service for interfacing with the mobile network interface;

each service includes a plurality of components, each for operating autonomously within the service in communication with other components within the same service; and

at least one service comprises a logic rule component for processing message content.

11. An access gateway as claimed in claim 1, wherein the processor comprises a work flow manager for routing messages within the gateway.

12. An access gateway as claimed in claim 1, wherein:

the processor comprises a work flow manager for routing messages within the gateway; and

the work flow manager routes a message by parsing a message to determine a routing list.

13. An access gateway as claimed in claim 1, wherein:

the processor comprises a work flow manager for routing messages within the gateway;

the work flow manager routes a message by parsing a message to determine a routing list; and

the work flow manager embeds a routing list within the message.

14. An access gateway as claimed in claim 1, wherein:

the processor comprises a work flow manager for routing messages within the gateway;

the work flow manager routes a message by parsing a message to determine a routing list;